

What is claimed is:

- 1 1. A method for making carbon/carbon composite disks for brakes, comprising the steps
2 of:
3 feeding carbon fibers into a mold;
4 compressing said fibers in the mold to form a compressed mat;
5 densifying said compressed mat by chemical vapor infiltration; and
6 further comprising the step of introducing an additive among said carbon fibers
7 forming said compressed mat.
- 1 2. The method for making carbon/carbon composite disks according to claim 1, wherein
2 said step of introducing an additive comprises dusting a powder of said additive upon said
3 carbon fibers prior to their being fed into said mold.
- 1 3. The method for making carbon/carbon composite disks according to claim 2, wherein
2 said powder is taken from the group of aluminum, silica, boron, and other performance
3 enhancers.
- 1 4. The method for making carbon/carbon composite disks according to claim 3, further
2 comprising the step of heat curing said compressed mat, said curing transforming said
3 aluminum, silicon and boron into aluminum oxide, silicon carbide and boron carbide or
4 other performance enhancers.
- 1 5. The method for making carbon/carbon composite disks according to claim 1, wherein
2 said step of introducing an additive comprises dusting a powder of said additive into said
3 mold and upon said carbon fibers therein.
- 1 6. The method of making carbon/carbon composite disks according to claim 5, wherein
2 said additive is introduced into said mold at about the midpoint of said step of feeding
3 carbon fibers into said mold, defining a layer of said additive within said compressed mat.
- 1 7. The method for making carbon/carbon composite disks according to claim 6, wherein
2 powder additive is taken from the group of aluminum, silica, boron, aluminum oxide,

3 silicon carbide and boron carbide or other performance enhancers.

1 8. The method for making carbon/carbon composite disks according to claim 7, further
2 comprising the step of heat curing said compressed mat.

1 9. The method for making carbon/carbon composite disks according to claim 1, wherein
2 said step of introducing an additive comprises bathing said compressed mat with a liquid
3 slurry containing said additive.

1 10. The method for making carbon/carbon composite disks according to claim 9, wherein
2 said additive is taken from the group of aluminum, silica, boron, aluminum oxide, silicon
3 carbide, boron carbide and other performance enhancers.

1 11. The method for making carbon/carbon composite disks according to claim 10,
2 further comprising the step of heat curing said compressed mat following subjection to said
3 slurry.

1 12. A carbon/carbon composite disk for brakes, comprising:
2 a multitude of carbon fibers formed in a compressed mat and having interposed
3 thereamong a particulate additive taken from the group of aluminum oxide, silicon carbide,
4 boron carbide and other performance enhancers.

1 13. The carbon/carbon composite disk according to claim 12, wherein said particulate
2 additive is uniformly distributed among said carbon fibers of said compressed mat.

1 14. The carbon/carbon composite disk according to claim 12, wherein said particulate
2 additive is concentrated in an axially disposed center layer of the disk.

1 15. The carbon/carbon composite disk according to claim 14, wherein said particulate
2 additive within said mat increases in concentration from axially disposed outer
3 surfaces of said disk to said center layer.